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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,637	05/12/2005	Peter Oakley	0690-0123PUS1	1067
2292 7590 11/02/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER HOLT, ANDRIAE M	
			ART UNIT 4133	PAPER NUMBER
			NOTIFICATION DATE 11/02/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/534,637	Applicant(s) OAKLEY ET AL.	
	Examiner Andriae M. Holt	Art Unit 4133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/12/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-6 are pending in the application. Claims 1-6 will be examined on the merits.

Priority

Priority to PCT/EP03/12483 filed on November 8, 2003, which claims priority to German Foreign Application 10252881 filed on November 12, 2002 is acknowledged.

Information Disclosure Statement

Receipt of Information Disclosure Statement filed on May 12, 2005 is acknowledged.

Claim Rejections - 35 USC § 112

Claims 1, 2 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant claims a synergistic mixture for increasing the yield of glyphosate-resistant legumes comprised of a strobilurin compound of formula I and a glyphosate derivative II. While being enabling for the combination of pyraclostrobin and glyphosate, as noted in the table on page 15 of the specification, the entire class of strobilurin compounds is not enabled.

1) Scope or breadth of the claims

The claims are broader in scope than the enabling disclosure. The specification merely discloses, without more, synergistic combination of pyraclostrobin and glyphosate. However, Applicant is purporting to that all compounds in the strobilurin class produce a synergistic effect when combined with glyphosate.

2) Nature of the invention

The nature of the invention is directed to a method and a synergistic mixture for increasing the yield of glyphosate-resistant legumes comprised of a strobilurin compound of formula I and a glyphosate derivative II.

3) Relative level of skill possessed by one of ordinary skill in the art

The relative level of skill possessed by one of ordinary skill in the art of agrochemical research and synthesis is relatively high, as a majority of lead investigators directing scientific research and development in this particular technological area possess an Ph.D. in a scientific discipline such as organic synthetic chemistry, polymer chemistry, biochemistry, pharmacology, biology or the like.

4) State of, or the amount of knowledge in, the prior art

The art teaches that strobilurin compounds when combined with herbicides such as glyphosate improves the vigor and yield of an agronomic plant such as soybeans and corn (Asrar et al., entire document).

5) Amount of guidance or direction provided by the inventor

Applicant was required to provide in the specification additional guidance and direction with respect to how use the claimed subject matter in order for the application to be enabled with respect to the full scope of the claimed invention. Although the

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instant specification discloses that pyraclostrobin and glyphosate have synergism, it remains silent on synergism with other strobilurin compounds in combination with glyphosate.

6) Presence or absence of working examples

The specification provides scientific data and working examples with respect synergistic activity in the combination of pyraclostrobin and glyphosate. However, the specification fails to provide scientific data and working examples for the entire class of strobilurin compounds in combination with glyphosate derivative. Examiner notes the table on page 15 of the specification, discloses results for the combination of pyraclostrobin and glyphosate only. Pyraclostrobin is a single species in the broad genus that is being claimed in independent claims 1 and 4. A single species cannot show purported unexpectedness of an entire genus. Therefore, the examiner cannot determine based on a single species that has been tested, if the entire genus would produce the purported synergism when combined with glyphosate.

7) Quantity of experimentation required to make and use the claimed invention based upon the content of the supporting disclosure

One of ordinary skill in the art would have to conduct a myriad number of experiments to test all compounds of formula I, strobilurin, in combination with a glyphosate derivative to prove synergism. Because of the nature of the compounds of formula I and all the compounds would possess different physical properties, the results would also be unpredictable, as evidenced by the specification, page 3, lines 32-40, the synergistic effect is more than surprising, since normally it can be assumed that a

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fungicide and herbicide have completely different mechanisms of action. This could take years. As a result, one of ordinary skill in the art would be required to conduct an undue amount of experimentation.

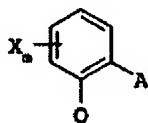
Genetech, 108 F.3d at 1366 states that "a patent is not a hunting license. It is not a reward for search, but compensation for its successful conclusion" and "patent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable."

Claim Rejections - 35 USC § 102

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-6 are rejected under 35 U.S.C. 102(a) as being anticipated by Asrar et al. (US 2003/0060371).

Applicant claims a synergistic mixture of a) a strobilurin compound of formula I

**I**

and b) a glyphosate derivative II in a synergistically active amount. Applicant also claims a method of increasing the yield in glyphosate-resistant legume using the above referenced mixture.

Asrar et al. disclose a method of increasing the vigor and/or the yield of an agronomic plant comprising treating the plant or its propagation material with an effective amount of an active agent which has the capability of increasing the yield and/or vigor of the plant in the absence of pest pressure by fungal plant pathogens, where the active ingredient is selected from the group consisting of a diazole fungicide, a triazole fungicide, and a strobilurin-type fungicide (page 1, paragraph 13) (method of increasing the yield). Asrar et al. discloses examples of triazole fungicides that are preferred for use in the invention include epoxiconazole, fluquinconazole, metconazole, and propiconazole (page 5, paragraph 50)(fluquinconazole, metconazole, instant invention). Asrar et al. further disclose examples of diazole fungicides that are useful include prochloraz (page 5, paragraph 51). Asrar et al. disclose strobilurin-type fungicides that are useful include pyraclostrobin (pyraclostrobin, formula I, claims 1-2 and 4-5, instant invention), azoxystrobin, and picoxystrobin (page 50, paragraph 52)(compounds of formula I).

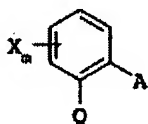
Asrar et al. disclose it is preferred to use the one or more active agents in combination with other materials in a composition (page 16, paragraph 359) (combination of active ingredients, strobilurin and azole fungicide). Asrar et al. disclose that compositions of the present invention are comprised of an effective amount of one or more of the active ingredients described above and one or more adjuvants (page 16, paragraph 360). It is known in the art and common practice to combine active ingredients to increase the desired effect such as weed control and yield improvement. Asrar et al. further disclose such compositions can also include such other materials as

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herbicides and pesticides (page 16, paragraph 360). Asrar et al. disclose the active agent can be combined with an herbicide for foliar application to the plant. Asrar et al. further disclose the active agents discussed above can be used in this combination (page 16, paragraph 360). Asrar et al. disclose that when an herbicide is used with the active agent, any herbicide used, provided that the plant is to be treated has resistance to such herbicide (page 16, paragraph 361). Asrar et al. disclose as described on page 4, paragraph 41, it is preferred that the plant have a transgenic event providing the plant with resistance to the herbicide being used (page, 16, paragraph 361) (glyphosate-resistant, instant invention). Asrar et al. disclose on page 17, paragraph 362 and in claim 50, glyphosate is a preferred herbicide (glyphosate derivative II, instant invention). Asrar et al. further disclose when the active ingredient is a diazole, triazole or strobilurin-type fungicide, a preferred herbicide is glyphosate (page 17, paragraph 363).

Claims 1-2 and 4-5 are rejected under 35 U.S.C. 102(a) as being anticipated by Ramsdale et al. (2002).

Applicant claims a synergistic mixture of a) a strobilurin compound of formula I



I

and b) a glyphosate derivative II in a synergistically active amount. Applicant also claims a method of increasing the yield in glyphosate-resistant legume using the above referenced mixture.

Ramsdale et al. disclose an experiment conducted to examine the influence of various insecticides and fungicides on glyphosate efficacy (page 280, paragraph 1). Ramsdale et al. disclose mixtures of glyphosate (glyphosate, instant invention) and pyraclostrobin (compound of formula I, pyraclostrobin) and azoxystrobin (compound of formula I). Ramsdale et al. disclose the combination of glyphosate derivative and pyraclostrobin has an effect on wheat, barley, oats and millet (page 281, table 1). The synergistic properties that contain glyphosate derivatives and pyraclostrobin are already known as disclosed by Ramsdale et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

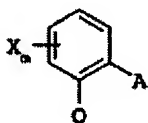
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asrar et al. (US 2003/0060371).

Applicant's Invention

Applicant claims a synergistic mixture of a) a strobilurin compound of formula I



I

and b) a glyphosate derivative II in a synergistically active amount. Applicant also claims a method of increasing the yield in glyphosate-resistant legume using the above referenced mixture.

Determination of the scope of the content of the prior art

(MPEP 2141.01)

The teachings of Asrar et al. are incorporated herein by reference and are therefore applied in the instant rejection as discussed above.

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Asrar et al. does not expressly teach the combination of a fungicidal azole compound.

Finding a prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

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One of ordinary skill in the art at the time of invention would have been motivated to use the teaching of Asrar et al. to produce a compound that would increase the yield in glyphosate-resistant legumes because Asrar et al. teach it is within the skill of the art to combination of a strobilurin compound, diazole fungicide, and/or a triazole fungicide with a herbicide will produce a compound to be used to improve the yield and vigor of an agronomic plant. Asrar et al. teach that it is within the skill of the art to combine one or more of the active ingredients to produce this compound. It is known in the art to combine various herbicidal and fungicidal compounds to improve the efficacy of active ingredients. Given the state of the art as evidenced by the teachings of the cited reference, and absent any evidence to the contrary, there would have been a reasonable expectation of success in combining the teachings of the cited references to formulate an economical composition that would increase the yield of a desired crop, decrease the resistance of an active herbicide, by enhancing it's effects, and decrease the amount of the active ingredients that have to be used in formulation.


None of the claims are allowed.

Conclusion

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andriae M. Holt whose telephone number is 571-272-9328. The examiner can normally be reached on 9:00 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Stucker can be reached on 571-272-0911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Andriae M. Holt

Patent Examiner



JEFFREY STUCKER
SUPERVISORY PATENT EXAMINER